

### ARRIVAL OF THE FULTON.

## THE STATE OF EUROPE.

**From Our Own Correspondent.**

The American crisis continues to excite the greatest interest. All the liberals of Europe unite for Fremont in their wishes. As to Brooks, European chivalry will probably admit that a European of the Continent have a voice in "affairs of honor," that is to say, of duels. Now, according to all French, German and Hungarian notions of honor, and according to the words of the *Code de Duel*, Brooks's behavior in the affair of Mr. Sumner was irregular, and in the affair of Mr. Burlingame it was the behavior of a coward, who backs out of a duel, and bullies only those whom he knows do not fight.

A. F. C.

## AFFAIRS IN FRANCE.

The papers contain nothing of general interest. The *Unionist*, noticing *Ampere's* work on the United States, says: "The absence of the *fady spirit* is the most striking mark of manners in the United States. Every one knows that the passion for liberty does not limit itself to political things. In America the child sucks in the spirit of independence with its milk, and paternal power is as little respected as any other power. For the youth of both sexes scarcely enter upon adolescence, it is common to consult their parents neither as to their marriages, nor as to their friendships, nor as to their amusements; to go alone to the ball and the theater; to receive a numerous company in the parlor, when the *old man* and *old woman* are snug in bed; do you call this keeping up the family-spirit? The 'old man,' as American of twenty calls his father, is so careful not to hamper the free development of his offspring, that he is almost always the cause of their religious sect to which they will pledge to be true. All worship is reputed alike good, except the Catholic, because that is the religion of the poor Paddy, and the Democratic broadcloth

PROUDHON has had a curious revival within a day or two. It seems that one of the horse-women of the Hippodrome felt a certain remorse for the vicious life she was leading, and wrote to Proudhon for advice. Proudhon, though evidently embarrassed by the uncertainty he was under as to the sincerity of his correspondent, writes her a letter full of sense and feeling. No one can accuse him of want of heart, after reading this letter. It is too

long, or I would translate it for you. I give you one or two salient points only. The poor girl pro-

ness not to believe in the virtue either of men or women. Proudhon replies that that is *very natural* to one of her mode of life, but *ascribes* her that it is with virtue as it is with health of body: almost nobody enjoys it perfectly, and yet nobody but who deems it to be the normal state and destiny of man. Do you suspect, he asks, the small number of those who enjoy good health to be hypocrites, and do you abandon yourself thereupon to the chances of heat and cold, to the risks of damp lodging and insufficient food? Certainly not. You believe in health as the law of human beings, as the foundation of our life. You believe that when we lose it, we must return to it, or like silly fools allow ourselves to perish of inertia and inaction. So with virtue. There is everywhere a little, almost nowhere a full measure. I know not where you get your ideas of virtue; I suppose from the convent in which you were educated. But I do not hesitate to say that even as you have life and health and vigor of body, so you have virtue also. The remorse and mortification you now experience hinder your seeing the net, but it is proved by your profound and just horror of it. You are like the convalescent who aspires to perfect health. The animals do not suffer ennuï, selfish, disgust, nor any of the moral maladies which flow from the loss of virtue. Why? Because their very animality protects them from such things. They have no soul, and obey only the inflexible laws of instinct. But there are men who suffer in this respect quite or nearly as little as the animals. Who are they? Laborers, artisans, learned men, functionaries; these scarcely know ennuï, disgust, depression of spirits, except when they give themselves up to indulgence and pleasure. It is only you people who suffer in this wise—you who play, who amuse yourselves, who frolic, who make love, who dream, who live fast, who dance, who sing, poets, artists, the literary, the Bohemia in short, including the priests and the monks. The superior world is the helpless prey of debauchery, disgust, and a shame which is worse than death. You have dared to separate *labor and liberty, labor and art, labor and love*. You said to yourself, I will have one of these things without the other, I will avoid all this commonplace labor and devote myself to liberty, to art, to love; and you have had your will. What is the re-

NEW MODE OF MANUFACTURING IRON

The essential feature of Mr. Rossmers's invention is that he takes crude iron directly from the ordinary blast furnace, and in the incredibly short space of 30 minutes converts it into a material of such a nature and size as to fit for the various manipulations ordinarily employed to adapt them to all the material purposes to which they are now applied. He thus dispenses with all the intermediate processes to which recourse has been had to produce the same results, and the refining, puddling, and squeezing stages, with all their attendant labor and fuel. Paradoxical as it may seem, it is not the less true, that he has achieved this great result by the application to the iron, in its transition from the blast furnace to the puddling furnace, of a heat inconceivably intense, generated without furnace or fuel, and simply by blasts of cold air. By this means he not only avoids the injurious action of mineral fuel on the iron under operation, which has always deteriorated the quality of English iron, but saves all the expense of the puddling furnace, and the cost of the fuel which it contains about 5 percent of carbon; but which can exist at a white heat in the presence of oxygen without mitting therewith and producing combustion; that such combustion would proceed with a rapidity dependent on the amount of surface of carbon exposed; and, lastly, that the temperature which the metal would acquire would be so high that carbon would be driven off from the surface, and expelled were

necessary to bring the oxygen and carbon together in such a manner that a vast surface should be exposed

their mutual action, in order to produce a temperature hitherto unattainable in our largest furnaces. With a view of testing practically this theory, he has constructed a cylindrical vessel of three feet in diameter and five feet in height, and the interior of which is lined with fire bricks, and at about two inches from the bottom of it inserted five tuyere pipes, the nozzles of which are formed of well-burnt fire clay, the orifice of each tuyere being about three-eighths of an inch in diameter. At one side of the vessel, about half way up from the bottom, there is a hole made for running out the slag, and on the opposite side, at the top, a tap-hole stopped with a plug, by which the iron is run out at the end of the process. A vessel is placed so near to the discharge hole of the blast furnace as to allow the iron to flow along a gutter into it, and a small blast cylinder is used capable of compressing air to the extent of five lbs. to the square inch, and the blast is regulated by means of valves, and the tuyeres, the converting vessel is in a condition to commence work. The blast being turned on, and the fluid iron run into the vessel, a rapid boiling up of the metal is heard going on within the vessel, the metal being tossed violently about and dashed against the sides of the vessel, and the steam which it moves, from the throat of the converting vessel. This continues for about 15 or 20 minutes, during which the oxygen in the atmosphere air combines with the carbon contained in the iron, producing carbonic acid gas, and at the same time evolving a powerful heat, and the temperature of the carbon and oxygen rises still further, to the temperature of the blast, so that the diminished quantity of carbon present allows a part of the oxygen to combine with the iron, which undergoes combustion and is converted into an oxide. At the excessive temperature that the metal has now acquired, the oxide, as soon as formed, undergoes fusion, and forms a paste of slag, which is easily separated from the metal, and runs off to the bottom of the station going on mixes most intimately the scoria and metal, every part of which is thus brought in contact with the fluid oxide, which wastes and cleanses the metal most thoroughly from the silica and other earthy bases that are contained in the waste made iron, and the sulphur and other volatile matter, and, depending so tenaciously to iron at ordinary temperatures are driven off, the sulphur combining with the oxygen and forming sulphurous acid gas.

In conducting the demonstration yesterday, 6 cwt. 3 gr. 18 lb. of molten iron, from a furnace, was poured into the vessel, and the blast, already described, was turned on, the blast having been applied at a pressure of about 8 lb. per square inch, and continued until 1:27. The mass of metal began to boil up, and the louder

MISCELLANEOUS  
THE VICTIMS OF THE NAPOLEONS

"These men," adds M. Louis Blanc, "belonging to all classes of society—artists, tradesmen, workmen, barristers, physicians, farmers, journalists, scholars—have been violently driven out of their country, not in consequence of any lawful judgment, but by the mere impulse of political passions. Let it be carefully remembered that the tortured victims are men who have never been tried by any lawful court, nor prosecuted by any form of law!"

**LOUIS NAPOLEON'S HEALTH.**—A few months back we had a good many reports afloat of visits that the Emperor Louis Napoleon intended to pay to various parts of Germany, Switzerland, &c., that he was going to visit the Emperor of Russia at St. Petersburg, and that he had just returned from a visit to the Emperor of Austria at Vienna. The reports were not altogether without foundation, but the degree well grounded is evident from the following: In the month of May a young French physician, of high repute with the faculty of medicine at Paris, and a skilful pathologist, came to the Emperor at this place, described very accurately the symptoms of his patient, all of which pointed distinctly to an affection of the liver, and inquired if the Calabaz water were well calculated to cure the disease. The Emperor gave him the distinct information that nothing was more certain than that the Calabaz water would be the absolute certainty of a cure would induce his patient to resort to that place. The young French physician, on leaving Berlin, proceeded to Vienna and consulted the Emperor of Austria, and the Emperor of Austria, authorities in Austria. In the latter part of last July the physician whom he had consulted here received a costly staff-bag from Paris with a few lines from his French medical colleague, requesting his acceptance of the same, and that he was to be sent to the Emperor's service; he would probably guess for whose benefit the service had been asked; but the consultation had, he grieved to say, been unproductive of any result, for "our Emperor" resorted to political medicine.

—*Berlin Cour.*

"THE MOVEMENT CURE."—Under this heading a pamphlet has appeared from the pen of one Professor

Georgia, who ventures to explain how people afflicted with nervous and other disorders may be cured by movements upon their body. The motions employed are of a mechanical, and consist of—First. Voluntary movements, by which the various levers of the human frame are put into an uniform regulated action; these movements are bending, stretching, rotation, lubrication, twisting, &c. Second. Movements independent of the will, whereby a mechanical stimulus, under the form of friction, vibration, pressure, percussion, liquefaction, &c. is so directed as to produce the desired effect upon the internal organs, &c. The patient is acted by the assistant in a prescribed position, whether it be reclining, lying, sitting, standing, kneeling, &c. and he is made, with or without resistance, to bend and extend his arms, to turn his body, &c. or submit to a friction or percussion applied to the chest, stomach, &c., or to a pressure made upon the head, &c. &c. to arrive at a bio-mechanical cure. Between each movement there are four rests from three to five minutes. Every three or four weeks, as the case may be, the prescription, if it be necessary, is changed, and new movements are introduced.

**Commercial.**  
The English MONEY market was dull. The latest transactions for CONSOLS for money were 9½¢; for account 9½¢. Money was in good supply in the STOCK exchange at 4½ ¢ cent, and in the DISCOUNT market the demand was only

The accounts from the manufacturing districts for the week show little alteration, but the general tone was satisfactory, the demand for driving and harnessing articles, while the orders from the United States and Canada were mainly good.

**LIVERPOOL COMMERCIAL REPORTS.**

**LIVERPOOL, p. m., 26th Aug., 1886.**—We are still without any arrival of consequence from the States, and with a continuance of showery weather, the Grain trade has become very quiet.

At to-day's market there was a good attendance of millers and dealers who paid the full prices of Friday for all the wheat offered. The demand for the best of the crop has been about satisfactory. Inferior kinds are however still unsaleable. FLOUR—No. 1, 30s 6d; No. 2, 30s 3d; No. 3, 29s 6d; No. 4, 29s 3d; No. 5, 29s; No. 6, 28s 6d; No. 7, 28s 3d; No. 8, 28s; No. 9, 27s 6d; No. 10, 27s 3d; No. 11, 27s; No. 12, 26s 6d; No. 13, 26s 3d; No. 14, 26s; No. 15, 25s 6d; No. 16, 25s 3d; No. 17, 25s; No. 18, 24s 6d; No. 19, 24s 3d; No. 20, 24s; No. 21, 23s 6d; No. 22, 23s 3d; No. 23, 23s; No. 24, 22s 6d; No. 25, 22s 3d; No. 26, 22s; No. 27, 21s 6d; No. 28, 21s 3d; No. 29, 21s; No. 30, 20s 6d; No. 31, 20s 3d; No. 32, 20s; No. 33, 19s 6d; No. 34, 19s 3d; No. 35, 19s; No. 36, 18s 6d; No. 37, 18s 3d; No. 38, 18s; No. 39, 17s 6d; No. 40, 17s 3d; No. 41, 17s; No. 42, 16s 6d; No. 43, 16s 3d; No. 44, 16s; No. 45, 15s 6d; No. 46, 15s 3d; No. 47, 15s; No. 48, 14s 6d; No. 49, 14s 3d; No. 50, 14s; No. 51, 13s 6d; No. 52, 13s 3d; No. 53, 13s; No. 54, 12s 6d; No. 55, 12s 3d; No. 56, 12s; No. 57, 11s 6d; No. 58, 11s 3d; No. 59, 11s; No. 60, 10s 6d; No. 61, 10s 3d; No. 62, 10s; No. 63, 9s 6d; No. 64, 9s 3d; No. 65, 9s; No. 66, 8s 6d; No. 67, 8s 3d; No. 68, 8s; No. 69, 7s 6d; No. 70, 7s 3d; No. 71, 7s; No. 72, 6s 6d; No. 73, 6s 3d; No. 74, 6s; No. 75, 5s 6d; No. 76, 5s 3d; No. 77, 5s; No. 78, 4s 6d; No. 79, 4s 3d; No. 80, 4s; No. 81, 3s 6d; No. 82, 3s 3d; No. 83, 3s; No. 84, 2s 6d; No. 85, 2s 3d; No. 86, 2s; No. 87, 1s 6d; No. 88, 1s 3d; No. 89, 1s; No. 90, 10d; No. 91, 9d; No. 92, 8d; No. 93, 7d; No. 94, 6d; No. 95, 5d; No. 96, 4d; No. 97, 3d; No. 98, 2d; No. 99, 1d; No. 100, 10d; No. 101, 9d; No. 102, 8d; No. 103, 7d; No. 104, 6d; No. 105, 5d; No. 106, 4d; No. 107, 3d; No. 108, 2d; No. 109, 1d; No. 110, 10d; No. 111, 9d; No. 112, 8d; No. 113, 7d; No. 114, 6d; No. 115, 5d; No. 116, 4d; No. 117, 3d; No. 118, 2d; No. 119, 1d; No. 120, 10d; No. 121, 9d; No. 122, 8d; No. 123, 7d; No. 124, 6d; No. 125, 5d; No. 126, 4d; No. 127, 3d; No. 128, 2d; No. 129, 1d; No. 130, 10d; No. 131, 9d; No. 132, 8d; No. 133, 7d; No. 134, 6d; No. 135, 5d; No. 136, 4d; No. 137, 3d; No. 138, 2d; No. 139, 1d; No. 140, 10d; No. 141, 9d; No. 142, 8d; No. 143, 7d; No. 144, 6d; No. 145, 5d; No. 146, 4d; No. 147, 3d; No. 148, 2d; No. 149, 1d; No. 150, 10d; No. 151, 9d; No. 152, 8d; No. 153, 7d; No. 154, 6d; No. 155, 5d; No. 156, 4d; No. 157, 3d; No. 158, 2d; No. 159, 1d; No. 160, 10d; No. 161, 9d; No. 162, 8d; No. 163, 7d; No. 164, 6d; No. 165, 5d; No. 166, 4d; No. 167, 3d; No. 168, 2d; No. 169, 1d; No. 170, 10d; No. 171, 9d; No. 172, 8d; No. 173, 7d; No. 174, 6d; No. 175, 5d; No. 176, 4d; No. 177, 3d; No. 178, 2d; No. 179, 1d; No. 180, 10d; No. 181, 9d; No. 182, 8d; No. 183, 7d; No. 184, 6d; No. 185, 5d; No. 186, 4d; No. 187, 3d; No. 188, 2d; No. 189, 1d; No. 190, 10d; No. 191, 9d; No. 192, 8d; No. 193, 7d; No. 194, 6d; No. 195, 5d; No. 196, 4d; No. 197, 3d; No. 198, 2d; No. 199, 1d; No. 200, 10d; No. 201, 9d; No. 202, 8d; No. 203, 7d; No. 204, 6d; No. 205, 5d; No. 206, 4d; No. 207, 3d; No. 208, 2d; No. 209, 1d; No. 210, 10d; No. 211, 9d; No. 212, 8d; No. 213, 7d; No. 214, 6d; No. 215, 5d; No. 216, 4d; No. 217, 3d; No. 218, 2d; No. 219, 1d; No. 220, 10d; No. 221, 9d; No. 222, 8d; No. 223, 7d; No. 224, 6d; No. 225, 5d; No. 226, 4d; No. 227, 3d; No. 228, 2d; No. 229, 1d; No. 230, 10d; No. 231, 9d; No. 232, 8d; No. 233, 7d; No. 234, 6d; No. 235, 5d; No. 236, 4d; No. 237, 3d; No. 238, 2d; No. 239, 1d; No. 240, 10d; No. 241, 9d; No. 242, 8d; No. 243, 7d; No. 244, 6d; No. 245, 5d; No. 246, 4d; No. 247, 3d; No. 248, 2d; No. 249, 1d; No. 250, 10d; No. 251, 9d; No. 252, 8d; No. 253, 7d; No. 254, 6d; No. 255, 5d; No. 256, 4d; No. 257, 3d; No. 258, 2d; No. 259, 1d; No. 260, 10d; No. 261, 9d; No. 262, 8d; No. 263, 7d; No. 264, 6d; No. 265, 5d; No. 266, 4d; No. 267, 3d; No. 268, 2d; No. 269, 1d; No. 270, 10d; No. 271, 9d; No. 272, 8d; No. 273, 7d; No. 274, 6d; No. 275, 5d; No. 276, 4d; No. 277, 3d; No. 278, 2d; No. 279, 1d; No. 280, 10d; No. 281, 9d; No. 282, 8d; No. 283, 7d; No. 284, 6d; No. 285, 5d; No. 286, 4d; No. 287, 3d; No. 288, 2d; No. 289, 1d; No. 290, 10d; No. 291, 9d; No. 292, 8d; No. 293, 7d; No. 294, 6d; No. 295, 5d; No. 296, 4d; No. 297, 3d; No. 298, 2d; No. 299, 1d; No. 300, 10d; No. 301, 9d; No. 302, 8d; No. 303, 7d; No. 304, 6d; No. 305, 5d; No. 306, 4d; No. 307, 3d; No. 308, 2d; No. 309, 1d; No. 310, 10d; No. 311, 9d; No. 312, 8d; No. 313, 7d; No. 314, 6d; No. 315, 5d; No. 316, 4d; No. 317, 3d; No. 318, 2d; No. 319, 1d; No. 320, 10d; No. 321, 9d; No. 322, 8d; No. 323, 7d; No. 324, 6d; No. 325, 5d; No. 326, 4d; No. 327, 3d; No. 328, 2d; No. 329, 1d; No. 330, 10d; No. 331, 9d; No. 332, 8d; No. 333, 7d; No. 334, 6d; No. 335, 5d; No. 336, 4d; No. 337, 3d; No. 338, 2d; No. 339, 1d; No. 340, 10d; No. 341, 9d; No. 342, 8d

**KANSAS.**  
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LATER FROM LAWRENCE.

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Saturday morning about one hundred of the Free-State forces at Lawrence were detailed to go as an escort to meet about one hundred guerrillas who were on their way to assist in the raiding party and the surrounding country. They were overhauled and questioned as to their intentions, &c. They stated their object and were allowed to pass on. They took the California road and met the train at Topeka. While between Big Springs and Washington the escort intercepted and turned back sixteen mounted men who were coming in the direction of Judge Elmore. They were doubtless on the way to Leecombe to join Stringfellow's Platoon. Counting the numbering about six hundred men inclusive of Buford's last installment. Yesterday the escort came back here with the emigrants, but as they had some valuable stores they struck off the California road, for the reason that if Woodson was going to use the troops to disarm them, which was the report, he would have some use for them. Lawrence to do it. They were from a reliable information, that Stringfellow's entire army of 600 men was to intercept them, and take away their stores—they shipped them. The whole train reached Lawrence in safety.

On Saturday morning, Aug. 30, Gen. Lane, instead of opening the road from Lawrence to Leavenworth, as my letter of the 29th anticipated he would, do went to render assistance to the Free-State men of Prairie City, who had another battle with the Ruffians on that same morning at daybreak. It seems that when they got enough of them together at Little Santa Fé, they started on the Santa Fé road, and probably came up into the Territory as far as Bull Creek, where they probably camped. There are different rumors about the number of them, as I have heard this Border-Ruffian army variously estimated at from 600 to 2,600, so we will call it 1,000 armed men, not including the Northern Division, which may be many more. On arriving at Bull Creek, this army must have been divided up into three divisions, for we reason that 500 were at Oswattimie, 75 at Prairie City, and the balance at Bull Creek, on Saturday morning. When they separated, and for what reason they did so, we know not.

On Tuesday, August 26, a company of Free-State men under command of Capt. Shore, surprised a camp of Missourians on South Middle Creek. There were about 50 Missourians, but the attack was made by six Free-State men. The former were under command of an editor from Fort Scott, Mo. They did not fight long, for the rest of Shore's company coming up at the time rather frightened them so that they threw down their arms and ran: 15 of them being first made prisoners, and two of them killed. The spoils amounted to three wagon-loads of stores, and some guns.

The next day they, in company with Capt. Brown, followed up the Missourians as far down as Sugar Creek. They saw that they were being chased, and made toward Missouri, where it was hoped they will stay. The Free-State men were recovered about seventy head of cattle, and a few horses, and a few sheep. The border-Ruffians were angry when they could not steal any more, and in consequence got driven back. This party of Free-State men got back to Oswattawatie on Friday night, the 29th August. On the same evening, the man who carries the mail from Oswattawatie to Westport, returned to Oswattawatie, after having been a prisoner at Santa Fé (nev) for ten days, charged with the infamous crime of Free-Stateism. He reported that the Ruffians intended to attack Oswattawatie very soon; that it was liable to be attacked at any time; and advised the people either to leave it or defend it. This was in the night, after most people had gone to bed.

Oswattawatie is situated in the fork formed by and near the confluence of the Mercedizine with Potawatamie Creek. On the banks of the creeks the timber grows to about half a mile in width. The town was beautifully located, and its residents are very comfortable and well-to-do.

On Saturday morning, about 8 o'clock, a number of people came into town with the news that the Missourians had come and were within two miles of the town. No defense had been made. The men of the town were not nearly so well prepared to defend it. However, they determined to do their best. It must be recollected that their women and children had been removed for a long time, at least ever since the town had been threatened with destruction. The men numbered about 35 to 40 men. The Riflemen must have numbered 500 to 600, for when drawn up in line of battle their line reached from the timber of the prairie to the timber of the hills. The distance between the two quarters of a mile, at the point where their disposition was made. They had two pieces of cannon and were mostly armed with United States rifles, but many of them had Kentucky rifles and Sharp's rifles. The Free-State men rallied at two or three points and fired into them as best they could. Capt. Brown was at one point with a handful of men, Capt. Shore at another point, and a

fearful odd. At last they were driven further back into the timber, and their ammunition gave out. A company of about fifty Rufians advanced into the timber, and a few Free-State men fought them till the others escaped by means of a privet hedge which the Rufians forgot to guard. At last they crept upon them, and three men swam the river while a company of fifty fired upon them. Two of the three came out on the other side; the other—a Mr. Partridge—is supposed to be killed. Capt. Brown is supposed to be killed, also, by a private road, and returned home. If so, he is safe; if not, he is killed. Five Free-State men are known to be killed. The loss on the other side is supposed to be twelve killed and twenty wounded. One of the Free-State men killed was a son of Capt. Brown, but was killed before the battle began.

As soon as the Free-State men retreated, the Rufians advanced and sacked and burned the town except two houses, which were those of Pro-Slavery men. They then went away, feeling quite patriotic, no doubt, after such a noble achievement. Waste the satisfaction of burning a few houses worth their thirty-two killed and wounded? I must be borne in mind that these five or six hun-

which Atkinson has been raising so long, and who make the main headquarters, while in the Territory at Bull Creek.

I have not got the particulars of the battle of Prairie City, but will send them as soon as I can. It is to this place Gen. Lane, with a part of his army, is gone, and it is the great new Santa Fe army he is going to meet.

News has just reached us that Lane drove the Missourians into Missouri yesterday. There was no battle, but a general retreat. They (the Russians) number 2,000 in all. In the mean time, the Stringfellow wing at Leecompton, numbering about 500, are at the houses and "carrying on tremendously." If there are any at Leacompton they are very quiet. We have had no communication from them in over a week, and it is supposed our prisoners taken there are at Leecompton, with Stringfellow's command.

This afternoon a company of dragoons encamped in sight of Lawrence. There are none at Leecompton now. There are 500 guarding the Treasury.

## HAVANA

The United States Mail steamship *Empire City* Capt. Windle, from New-Orleans and Havana, arrived at this port yesterday afternoon. The *Empire City* left New-Orleans on the morning of the 34 inst., and entered the harbor of Havana at sunset on the 5th, and left the same afternoon for New-York.

The Havana papers furnish detailed accounts of the ravages of the late hurricane, which, in certain parts of the island, and especially at Sagua la Grande, caused great destruction of property both aloft and ashore. The gale commenced on the 27th ult., reached its height on the 28th, and moderated on the 29th.

At Sagua one English and six American vessels were ashore. Crews saved; vessels a total loss.

The Lighthouse at Cardenas was swept away, and here, as at Matanzas and Sagua, much damage was done to the crops.

The ship Rubicon, Pachett, from Boston for New Orleans, put into Havana on the 5th, having sustained great damage in the gale of the 27th and 28th; and was thought she would be condemned. Also brig Maria, from a port in St. Domingo, likewise crippled.

The yellow fever is reported to be on the decline and, indeed, no new cases are heard of since the hurricane.

The Empire City encountered very thick weather on the coast, having been enveloped in a dense fog for the last 24 hours.

We are indebted to Mr. C. H. Denison, Purser of the Empire City, for favors.

## INDUSTRIAL INTELLIGENCE.

CRANDALL'S MEASURING INSTRUMENT. An instrument of the very highest practical importance in surveying has just been brought out, consisting of an instrument for indicating distances by inspection. It is the invention of Mr. E. A. Crandall of Friendship, Adirondack County, in this State. A patent was at first refused, for want of novelty; but a few practical demonstrations of its powers in and about the Patent Office reversed the decision, and showed it materially different from anything before known in any country. It requires to be very accurately made and carefully graduated, after which any distances, varying from three or four to 600 or 800 feet, may be measured most accurately than with the chain, by simply adjusting two telescopes until both bear on the target and the reading of the position of certain levers which indicate the distance. The principle is the familiar one of triangulation, the base of the triangle being one foot. When greater distances than 100 or 600 feet are required with accuracy, a very simple process enlarges the base to 10 or to 100 feet, and after changing the instrument to the new position, at the other extremity of this new base, a corresponding modification of the result obtained gives the distance. This method requires no corrections for difference of level except in a very rugged country, as the construction of the instrument is such that within the field of view of the telescopes the measurements are always on an absolute level, and the whole operation is so rapid, so free from ordinary sources of error, and involves so little mental labor, that the instrument is likely to become not only one of the indispensable in every branch of surveying and civil engineering, but an important adjunct to the military service, by indicating at once the distance of every object to be commanded.

**HOLLOW LIGHTNING RODS.**—Mr. David Munson, an ingenious mechanic of Indianapolis, has patented a novel and very possibly a valuable improvement in lightning rods, the design being to employ a superior conductor and present a very extensive surface to attract the electric fluid, without materially increasing the expense above that of the ordinary iron rods. The material employed in the patent is sheet copper or brass, which is bent by machinery into the form of a hollow tube, but with two wide lips or ridges on opposite sides, the whole being twisted to add the strength. The lips or ridges being sharp, especially on the sides where the thin edges of the sheet are presented, the rod seems admirably provided with edges and slightly ragged points to attract the fluid. Such rods we presume might be made to appear considerably more cleanly and ornamental than the rusty iron now universally employed.

**THE DUTY LOCOMOTIVE.**—Mr. Henry Waterman once designed a locomotive which was intended should look like a common baggage car, make no noise, should smoke no steam, and although slow could pull like a dragon. It was built by the Hudson River Rail Road Co., and used for a time in hauling cars through the streets, a man always preceding it on horseback to clear the track, but its use was forbidden by the city authorities. The objections having been recently reconsidered and removed, leave has been granted to the Company again to use this powerful engine in places where horse power, under certain restrictions, and the "dumb" "mule," as it is termed, is now being retired and improved in several respects. There are three pieces of 36 inch driving wheels, without flanges coupled, and located between the ordinary trucks. The cylinders are 18 inches in diameter, the stroke of piston the same, and on a recent trial the machine proved itself capable of hauling 15 loaded freight cars up the grade on the Eleventh avenue without difficulty. There are two large iron tanks for water, the water used in condensing the steam being worked alternately from one into the other. The fuel being Anthracite Bitum or smoke is visible.

**TRIGGER PROTECTOR FOR FIREARMS.**—A Philadelphia inventor has patented a device which will protect the vulnerable parts of a gun lock, so as to avoid danger of discharging the piece by any accidental violence, and yet may be readily opened in a moment when desired for use. It should be introduced on the fowling pieces, etc., of all unskilful sportsmen. It is invariably the unskilful who are careless in the use of firearms.

BALANCE-SHAIR VALVE.—Mr. H. R. Worthington of Brooklyn, the inventor of the valuable Safety feed Pump, which goes by his name, has just obtained a patent for "transferring steam pressure from the back of a steam slide valve to a fixed point on the mechanism of a piston and vibrating link." This seems to involve only a reversed form of an extremely common device. It was used on the stern-wheel steamer Allagheys Belle No. 3, on the Allagheys River several years ago; it was on the locomotive Iron Duke, in the London Exhibition of 1851, and is on the propeller Oriental, running on the lakes. It is in fact the common method of balancing the pressure of high steam whenever the valve is of such size as to render an balancing advisable. It consists in fixing a cylinder in the top of the steam chest and connecting a piston fitted therein by means of a suitable link to the back of the slide valve. That arrangement is common property, if Mr. W. has invented an improvement his claim does not indicate it.

COMET EXPECTED.—One of the largest comets described by historians has appeared at slightly irregular intervals of about 300 years each. The last appearance was in 1536. It is impossible to predict its reap-